WHAT IS CLAIMED IS:

1. A method of operating in a network in which a plurality of stations communicate over a shared medium, comprising

transmitting a group of bits from a transmitting station to a receiving station, wherein the group of bits comprises information bits and error checking bits;

communicating additional bits from the transmitting station to the receiving station without transmitting the additional bits, the communicating of the additional bits comprises

at the transmitting station, deriving the error checking bits from the additional bits using an error checking process; and

at the receiving station, using the same or a related error checking process to process candidate bits known to the receiving station, and comparing the output of the error checking process to the error checking bits received from the transmitting station to determine if the candidate bits correspond to the additional bits.

2. The method of claim 1 wherein the communicating of the additional bits further comprises

at the transmitting station, deriving the error checking bits from the additional bits and the information bits using the error checking process; and

at the receiving station, using the same or a related error checking process to process the candidate bits and the information bits received from the transmitting station, comparing the output of the error checking process result to the error checking bits received from the first station to determine if the candidate bits correspond to the additional bits.

3. The method of claim 1 wherein the additional bits comprise an address identifying one or both of the transmitting and receiving stations.

4. The method of claim 3 wherein the group of bits constitutes a packet, the information bits comprise a source address and data, and the additional bits comprise a destination address identifying the receiving station.

5. The method of claim 3 wherein the group of bits constitutes a packet, the information bits comprise a source address and data, and the additional bits comprise at least a portion of a destination address at least partially identifying the receiving station.

6. The method of claim 3 wherein the group of bits constitutes a Request To Send (RTS), the information bits comprise a source address and data, with the source address identifying the transmitting station, and the additional bits comprise a destination address identifying the receiving station.

7. The method of claim 3 wherein the group of bits constitutes a RTS, the information bits comprise a source address and data, with the source address identifying the transmitting station, and the additional bits comprise at least a portion of a destination address at least partially identifying the receiving station.

8. The method of claim 3 wherein the group of bits constitutes a Clear To Send (CTS) transmitted in response to an RTS, and the additional bits comprise one or both of the following: (1) a destination address identifying the receiving station and (2) a source address identifying the transmitting station.

9. The method of claim 3 wherein the group of bits constitutes an acknowledgement, and the additional bits comprise one or both of the following: (1) a source address identifying the transmitting station and (2) a destination address identifying the receiving station.

10. The method of claim 3 wherein the group of bits constitutes an acknowledgement and the additional bits comprise one or both of the following: (1) at least a portion of a source address at least partially identifying the transmitting station and (2) at least a portion of a destination address at least partially identifying the receiving station.

11. The method of claim 3 wherein the group of bits constitutes an acknowledgement transmitted in response to a receipt of a packet, and the additional bits comprise a set of bits from the packet that is sufficiently unique as to associate the acknowledgement with the packet.

12. The method of claim 6 wherein the information bits comprise bits indicating which portions of a previously transmitted packet need to be retransmitted.

13. The method of claim 1 wherein the error checking process comprises a cyclic redundancy check, and the error checking bits comprise frame check sequence (FCS) bits associated with the cyclic redundancy check.

14. A method of operating in a network in which a plurality of stations communicate over a shared medium, comprising

transmitting a group of bits from a transmitting station to a receiving station, wherein the group of bits comprises information bits and a substantially unique number;

acknowledging receipt of the group of bits at the receiving station by transmitting an acknowledgement containing the substantially unique number or containing data from which the substantially unique number can be derived.

15. The method of claim 14 wherein the group of bits includes a destination address identifying the receiving station, and the acknowledgement includes the same destination address.

16. The method of claim 15 wherein the transmitting station receives the acknowledgement and determines whether it contains the same destination address and the same substantially unique number as included in the transmitted group of bits.

17. The method of claim 16 wherein the group of bits constitutes an RTS and the acknowledgement constitutes a CTS.

18. The method of claim 14 or 17 wherein the substantially unique number comprises a pseudorandom number.